

A B S T R A C T

A BUOYANCY DEVICE AND A METHOD FOR STABILIZING AND
CONTROLLING THE LOWERING OR RAISING OF A STRUCTURE

5 BETWEEN THE SURFACE AND THE BED OF THE SEA

The present invention relates to the use of a buoyancy fluid presenting density that is less than that of sea water, and that is confined in a rigid or flexible 10 leaktight casing (4₁, 19₁), so as to constitute an immersed buoyancy element (4, 19), said use being characterized in that said buoyancy fluid is a compound that is naturally in the gaseous state at ambient atmospheric temperature and pressure, and in the liquid 15 state at the underwater depth to which said buoyancy element is immersed. The present invention also relates to a method of putting a buoyancy element into place between the surface and the bed of the sea, said method being characterized in that said fluid is stored in a 20 tank on a surface ship (61) as a liquid in the cooled or compressed liquid state, and it is injected in the liquid state into a pipe (23) from the surface (61) where it is stored to a said immersed casing (4₁, 19₁) at an underwater depth at which the underwater pressure is not 25 greater than the vapor pressure of the gas corresponding to said compound at the temperature at said depth.

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